UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,637	10/20/2000	Sven-Rune Olofsson	194873US2PCT	7011

7590 08/06/2002

Christopher F. Regan
Allen, Dyer, Doppelt, Milbrath & Gilchrist, P. A.,
P. O. Box 3791
Orlando, FL 32802-3791

EXAMINER
BARNIE, REXFORD N

ART UNIT	PAPER NUMBER
2643	

DATE MAILED: 08/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/582,637	OLOFSSON ET AL.
Examiner	**Art Unit**
Rexford Barnie	2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Jun 5, 2002* .

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *34-63* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *34-63* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

REXFORD N. BARNIE
PATENT EXAMINER
RBarnie
07/29/02

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 34-36, 38, 39, 42, 46-51, 53 and 61-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholtz et al. (US Pat# 6,301,337) in view of Dresser (US Pat# 5,357,556) or Lechleider (US Pat# 6,091,713).

Regarding claims 34, 46 and 63, Scholtz et al. teaches a combined handset and POTS FILTER comprising of an active splitter circuitry to be connected to a subscriber line for separating analog POTS signals from XDSL signals (see figs. 3, 6, column 1 lines 6-9, column 3 lines 43-50) and line test circuitry (see 70 of fig. 3, and operational circuitry of fig. 6) associated

with the active splitter for transmitting a test signal in accessing the *quality of a local subscriber loop*. Eventhough, Scholtz fails to teach using a unique identity code received during testing and associated with a communication device to identify a loop being tested, it's notoriously well known in the art to use identification codes including ANI or CLI in identifying a subscriber loop which is being tested to determine the quality of the loop/line and to make the necessary changes if needed.

Dresser teaches a system and method for telephone network testing comprising of a testing unit in (see figs. 3-6, column 5 lines 10-13, column 6 lines 37-44) with a serial number identifier or ID unit (18) which can be used to identify a testing unit.

Lechleider teaches generating a test signal any a telephone device (102, column 4 lines 33-42) which goes off-hook from an on-hook state to generate a telephone call to a central station and also transmits caller ID or ANI information associated with the subscriber line (see column 5 lines 43-65, column 7 lines 23-47). The test signal would be analyzed by a qualification center or system (190 of fig. 1) in determining whether the line is capable of carrying or supporting digital signals.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of either one of the secondary references into that of Scholtz thus making it possible to identify a line, loop or circuits being tested, if any changes are to be made to the loop or line based on test results.

Regarding claim 35, The combination teaches a test signal specifically meant to determine the quality of a subscriber loop.

Regarding claim 36, The combination including Lechleider teaches using a test signal in performing a plurality of measurements which can then be used in determining whether a line for instance is capable of carrying digital signals (see entire disclosure of Lechleider).

Regarding claim 38, see the explanation as set forth in the rejection of claim 34.

Regarding claim 39, It would have been obvious to use any testing signal which can be used for digital testing a of a loop or trunk in determining its quality.

Regarding claim 42, The combination teaches testing using a pre-determined schedule (see column 13 lines 1-5).

Regarding claims 47-48, The combination teaches being able to go off-hook from an on-hook status to generate a remote call including a test signal in determining the quality of a subscriber loop (see Lechleider or Scholtz).

Regarding claim 49, see the explanation as set forth in the rejection 34. Furthermore, the combination of Scholtz and Lechleider teaches the possibility of being able to assess the quality of a subscriber loop including loops capable of carrying digital signals. The user can request testing of a subscriber loop by activating a test telephone including the circuitry as taught by Scholtz.

Regarding claims 50-51 and 53, The combination including Lechleider or Scholtz teaches the possibility of being able to performed any desired line test using a test signal.

Regarding claims 61-62, The combination including Lechleider teaches being able to assess and store characteristics associated with a subscriber loop for future reference based on a test signal received from a remote station.

3. Claims 40-41 and 55-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over rejection of claim 34 in view of EP (0 790977 A2, **cited by applicant**).

Regarding claims 40-41 and 55-56, The combination teaches analyzing a power spectral density but fails to teach a series of sinusoidal signals of known amplitude, each signal in the series having a different frequency, the series spanning a frequency range for which a line is to be tested but EP '977 teaches a method of transmitting a signal with ADSL characteristics which would have a sinusoidal form wherein its power density can be analyzed (see figs. 5, 7, 9, 11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of EP '977 into that of the combination thus making it possible to analyze features such as power spectral density associated with the sinusoidal signal.

4. Claims 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over rejection of claim 34 in view of Bingel.

Regarding claims 44-45, The combination fails to teach the claimed subject matter but Bingel teaches an apparatus and method for qualifying telephones and other attached equipment for optimum DSL operation by means of an ASIC (110 of figs. 2 and 4-6).

Therefore, it would have been obvious to include the teaching of Bingel into that of the combination thus making it possible to minimize circuitry, an advantage associated with digital processing/testing means.

5. Claims 37, 43, 52, 54 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholtz in view of Dresser (US Pat# 5,357,556) or Lechleider (US Pat# 6,091,713) and further in view of Winkler (US Pat# 5,870,451).

Regarding claims 37, 43, 52, 54 and 60, The combination fails to teach the claimed subject matter comprising of being able to use pulse test signals and testing including short circuiting of a subscriber line.

Winkler et al. teaches a testing system wherein pulse test signals can be used in determining qualities of a loop (see column 9 of Winkler) or testing including short-circuiting of the subscriber line (see columns 5-6 of Winkler).

Winkler et al. teaches testing means which receives and stores unique code information (see column 16 line 56-column 17) associated with measurements taken on a subscriber line.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Winkler into that of the combination thus making it possible to identify a line, loop or circuits being tested, if any changes are to be made to the loop or line based on test results by using any known testing methods

6. Claims 34, 36, 46, 49 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bella (US Pat# 6,212,258, '769, '775) in view of Dresser (US Pat# 5,357,556).

Regarding claims 34, 46, 49 and 63, Bella teaches a signaling method for invoking a test mode in a network interface unit comprising of an active splitter circuitry to be connected to a subscriber line for separating the analog POTS signals from the XDSL signals and line test circuitry associated with the active splitter for transmitting a test signal on the line based upon at least one of the event and a test request signal in (see fig. 1 and disclosure). Bella fails to teach that the test unit in conjunction with the splitter would have an ID unit thus making it possible for a remote testing station to identify the source of a test signal eventhough arguably it would be obvious to include such information.

Dresser teaches a system and method for telephone network testing comprising of a testing unit in (see figs. 3-6, column 5 lines 10-13, column 6 lines 37-44) with a serial number identifier or ID unit (18) which can be used to identify a testing unit.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of either one of the secondary references into that of Scholtz thus making it possible to identify a line, loop or circuits being tested, if any changes are to be made to the loop or line based on test results.

Regarding claim 35, The combination teaches the test signal is for a specific line test including the ability to test for ability of a twisted pair to support a communication service(s).

Regarding claim 36, The combination teaches the ability of being able to perform a plurality of test including harmonic loss, return loss, insertion loss, phase distortion and so forth.

Response to Arguments

7. Applicant's arguments filed on 06/05/02 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the prior art of record teaches a testing device which can be used in testing a telephone loop and so on in addition to the fact that testing can be performed at a customer premise or at a central office, it's notoriously well known to perform testing of a subscriber loop by sending a test signal to a remote testing station and therefore, the combination as set forth in the rejection of the claimed subject matter is believed proper and permissible in light of the fact that when a test signal is sent to a remote station, the identify the source of the test signal can be determined through ANI or an identifier unique to the source.

In summary, the explanation as set forth in the rejection of the claimed subject matter is believed to be proper and permissible.

Furthermore, see the new explanation as set forth regarding the claimed subject matter using Bella which teaches a test device in conjunction with a filter.

Conclusion

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to REXFORD BARNIE whose telephone number is (703) 306-2744. The examiner can normally be reached on Monday through Friday from 8:30 to 6:OOp:m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached on (703) 305-4708.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
Washington, D.C. 20231
or **faxed to (703) 872-9314** and labeled accordingly (Please label **"PROPOSED/INFORMAL" or "FORMAL"**).
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 306-0377.

Rexford Barnie
Patent Examiner
RB 07/29/02

REXFORD N. BARNIE
PATENT EXAMINER
RBarnie